REMARKS

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

The rejection of claims 1, 10, 12, 13, 15, 16, 18-23, 31, 34, 35, 37, 38, 41, 43, and 44 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,306,584 B1 to Bamdad ("Bamdad") is respectfully traversed in view of the above amendments and the following remarks.

Bamdad discloses a technique for immobilizing biological molecules, nucleic acid strands in particular. Bamdad describes that biological molecules immobilized at surfaces can be used in electron-transfer detection techniques in which a binding partner of a biological molecule is brought into proximity of the surface-immobilized biological molecule, an electrical potential is created between the two biologically-binding species, and electron transfer through the species is determined. Bamdad also discloses a technique involving immobilizing a biological molecule, such as a protein, DNA, etc., at a surface via a self-assembled monolayer, affecting the biological molecule via, for example, biological binding, inducing a chance in conformation via a prion, etc., and detecting an electronic property change in the molecule via a change in impedence associated with an electronic circuit addressed by the biological molecule.

However, Bamdad does not in any way teach or suggest using reagents including: (i) a solution including nucleation-center forming entities for binding to the target if present in the sample and (ii) a combination of metal ions and a reducing agent to allow formation of the conductive substance on the entities, where the conductive substance forms a conductive bridge between the at least two of the electrodes, as set forth in amended claims 1-9, 18-23, 31, 33, 35-38, 41, and 43-44 of the present application. Bamdad also fails to teach or suggest using reagents including monomers of a non-nucleic acid conducting polymer which deposit onto or bind to a complex formed between the recognition moiety and the target, where the polymer forms a conductive bridge between the at least two of the electrodes, as set forth in claims 10-13, 15-16, and 34 of the present application. More specifically, Bamdad does not teach or suggest a system for assaying one or more targets in a sample comprising "reagents formulated to deposit a conductive substance onto a complex formed between said recognition moiety and said target, wherein reagents comprise: (i) a solution comprising nucleation-center forming entities for binding to said target if present in

the sample; and (ii) a combination of metal ions and a reducing agent to allow formation of said conductive substance on said entities, and wherein the conductive substance, when deposited onto the complex, forms a conductive bridge between the at least two of the electrodes" as required by claim 1 of the present application. Nor does Bamdad teach or suggest a system for assaying one or more targets in a sample comprising "reagents comprising monomers of a non-nucleic acid conducting polymer which deposit onto or bind to a complex formed between said recognition moiety and said target, and for growing a conductive polymer from deposited or bound monomers, such that upon polymerization of the monomers a conducting bridge between the at least two electrodes is formed" as required by claim 10. Bamdad also does not in any way teach or suggest a kit for use in assaying one or more targets in a sample comprising "reagents formulated to deposit a conductive substance onto a complex formed between said recognition moiety and said target, wherein reagents comprise: (i) a solution comprising nucleation-center forming entities for binding to said target if present in the sample; and (ii) a combination of metal ions and a reducing agent to allow formation of said conductive substance on said entities, and wherein the conductive substance, when deposited onto the complex, forms a conductive bridge between the at least two of the electrodes" as required by claim 31, or "reagents comprising monomers of a non-nucleic acid conducting polymer which can bind to the target or to a complex formed between said recognition moiety and said target, such that upon polymerization of the monomers a conducting bridge between the at least two electrodes of a set is formed" as required by claim 34 of the present application. Nor does Bamdad teach or suggest an electronic device, as required by claim 35, or an electric device, as required by claim 37, for determining one or more targets in a sample comprising "reagents formulated to deposit a conductive substance onto a complex formed between said recognition moiety and said target, wherein reagents comprise: (i) a solution comprising nucleation-center forming entities for binding to said target if present in the sample; and (ii) a combination of metal ions and a reducing agent to allow formation of said conductive substance on said entities." Since Bamdad does not teach or suggest the claimed systems, kits, electronic and electric devices that use such reagents, the rejection based on this reference is improper and should be withdrawn.

The rejection of claim 36 under 35 U.S.C. § 103(a) for obviousness over Bamdad in view of U.S. Patent No. 5,993,632 to Becker et al. ("Becker") is respectfully traversed.

Bamdad is described above.

Becker is cited for disclosing an apparatus which comprises a plurality of electrodes which are spaced less than 100 microns apart. However, even if this is true, Becker does not overcome the above-noted deficiencies of Bamdad.

Thus, the rejection of claim 36 (which is dependent from claim 35) for obviousness over Bamdad in view of Becker is improper and should be withdrawn.

The provisional rejection of claims 24-30, 39-42, and 45 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending U.S. Patent Application Serial No. 10/452,139 is respectfully traversed in view of the attached terminal disclaimer.

The objection to claims 2-9, 11, 32, 33, and 46 as depending on a rejected claim is obviated in view of the above amendments and remarks.

In view of all of the foregoing, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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